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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/758,788	01/11/2001	Bruce Leroy Beukema	AUS9-2000-0640-US1	1719

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EXAMINER

NGUYEN, HIEP T

ART UNIT	PAPER NUMBER
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2187

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DATE MAILED: 10/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/758,788

Applicant(s)

BEUKEMA ET AL.

Examiner

Hiep T Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 January 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 8-17 and 20 is/are rejected.
- 7) ☒ Claim(s) 6-7 and 18-19 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION

1. Claims 1-20 are presented for examination.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-5, 8-9, and 12-17, and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Biran U.S. Patent No. 6,345,347.

(a) As per claim 1: Biran teaches a method in a data processing system for accessing a memory, the method comprising:

- i. Verifying access rights for a memory operation using a first data structure in response to receiving a request to perform the operation, wherein the request includes a virtual address for the operation [figure 5, step 76; col. 7, lines 16-20]; and
- ii. Responsive to access rights being verified for the memory operation, translating the virtual address into a real address using a second data structure [col. 7, lines 20-28].

(b) As per claim 2: Biran further teaches that the first data structure is a first table and the second data structure is a second table [see figure 3, elements 48 and 50].

(c) As per claim 3: Biran further teaches that the first table is a protection table and the second table is an address translation table [see figure 3, elements 48 and 50].

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- (d) As per claim 4: Biran further teaches that the first data structure includes a virtual address of a start of a memory region within the memory for the operation [see figure 3, element 47].
- (e) As per claim 5: Biran further teaches that the first data structure includes a length of the memory region [see figure 3, element 45].
- (f) As per claims 8-9 and 12: the claimed system basically encompasses the necessary means for carrying out the steps of claims 1-5, with the exception of the further claimed limitations of the "bus system" and the "communication unit". Still, Biran must have at least a system bus for connecting the processor to the memory and an I/O bus for connecting the system bus to peripheral units. Furthermore, Biran teaches the claimed communication nit through the network adapter 37. Accordingly, Biran also anticipates the claimed system in claims 8-12.
- (g) As per claims 13-17, the claimed system basically encompasses the necessary means for carrying out the claimed steps in claims 1-5. Accordingly, Brain also anticipates the claimed system in claims 13-17.
- (h) As per claim 20: the claimed computer program product basically comprises of necessary instructions stored in a computer-readable memory for carrying out the steps of claim 1. Accordingly, the Brain also anticipates the claimed computer program product. This is because the operations that were carried out by the Brain system as mentioned in the rejection of claim 1 must have been instructions stored in a computer-readable medium, as well known.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been

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obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Biran as applied to claim 8 above and further in view of well-known feature.

- (a) Biran teaches a system as mentioned in the rejection of claim 8.
- (b) Biran, however, does not explicitly disclose whether the processor unit [i.e., the I/O adapter 38] is a single processor or a plurality of processors.
- (c) Still, one having ordinary skill in the art would readily recognize that tradeoff between having one or plurality of processor in the adapter. Clearly, single processor would be less complex in design and/or managing its operations, but the processing power would be less than that comparing to multi-processor unit. On the other hand, multiprocessor would enhance more computing power such as parallel processing, but the design and/or operation coordination among processor would be more complex.
- (d) Accordingly, based on the above, it would have been obvious to one having ordinary skill in the art to obtain either a single processor or plurality of processor for the Biran adapter 38.

Allowable Subject Matter

6. Claims 6 and 18 are objected to as being dependent upon a rejected base claim, but would be allowable over the prior art of record if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Consequently, claims 7 and 19 would also be allowable over the prior art of record.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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- (a) Draves, U.S. patent no. 5,802,590, teaches a method and system for providing secure access to computer resources.
 - (b) Garcia, et al., U.S. patent no. 6,163,834 teaches two level address translation and memory registration system.
 - (c) Regnier et al., US 2002/0062402, teaches a translation and protection table for controlling the access right to a memory region and translating virtual address into physical address.
8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hiep T Nguyen whose telephone number is (703) 305-3822. The examiner can normally be reached on Monday-Friday from 9:30 a.m. to 6:00 p.m.
9. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald Sparks can be reached on (703) 308-1756. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.
10. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Hiep T Nguyen
Primary Examiner
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HTN